FRIDENBERG, Konstantin Ernestovich; ALTUNDZHI, N.V., redaktor; USHAKOV, G.I., retsenzent; KOPELEVICH, Ye.I., redaktor; MEDVEDEVA, L.A., tekhnicheskiy redaktor.

[Production program for textile enterprises] Proizvodstvennaia programma tekstil'nogo predpriiatiia. Pod red. N.V.Altundzhi. Moskva, Gos.nauchno-tekhn. izd-vo Ministerstva tekstil'noi promyshlennosti SSSR, 1956. 31 p. (Textile industry) (MLRA 9:6)

FRIDENBERG, K.E., kand. tekhn. nauk, dots.

Ratio of the number of spindles and spinning frames in the preparing room of weaving mills to the number of looms depending on the structure of the fabrics and the operation cycle of the equipment. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.1:3-16 '58. (MIRA 11:5)

1. Moskovskiy tekstil'nyy institut.
(Textile industry)

ALTUNDZHI, Nadezhda Vladimirovna; IVANOVA, Mariya Nikolayevna; USHAKOV, G.I., retsenzent; FRIDENBERG, K.E., red.; KOPELEVICH, Ye.I., red.; MEDVEDEV, L.Ya., tekhn.red.

[Cost planning for textile plants] Planirovanie sebestoimosti produktsii na predpriiatiiakh tekstil'noi promyshlennosti. Pod red. K.E.Fridenberga. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promysbl., 1958. 230 p. (MIRA 12:4)
(Textile industry--Costs)

FRIDENBERG, K.E.

Mathematical method of cost analysis. Izv.vys.ucheb.zav.; tekh. tekst.prom. no.4:3-10 '59. (MIRA 12:11)

1. Moskovskiy tekstil'nyy institut.
(Textile industry--Costs)

FRIDENBERG, K.E.

Mathematical analysis of costs. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.5:3-9 '59 (MIRA 13:3)

1. Moskovskiy tekstil'nyy institut.
(Textile industry--Costs)

ABRYUTIN, Viktor Nikolayevich; FRIDENBERG, Rikhard Arnol'dovich; BULGAKOV, K.V., dots., retsenzent; RUZIN, Ya.L., dots., retsenzent; SHABADASH, B.I., dots., retsenzent; VOL'PE,L., red.

[Electrical section of large capacity thermal electric power plants] Elektricheskaia chast' moshchnykh teplovykh elektrostantsii; uchebnoe posobie. Leningrad, Severo-Zapadnyi zaochnyi politekhnicheskii in-t, 1962. 197 p. (MIRA 17:3)

FRIDENBERG, V.

USSR/Chemical Technology. Chemical Products and Their Application -- General Questions, I-1

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 4993

Author: Fedorenko, N., Fridenberg, V.

Institution: None

Title: Important Questions of Chemical Industry Economics

Original Publication: Vopr. ekonomiki, 1956, No 6, 25-38

Abstract: The most important economic problems of various branches of the chemical industry are considered in the light of the directives of the Twentieth Congress of Communist Party of the Soviet Union.

Card 1/1

FRIDENBERG, V.

YEFIMOV, A. and FRIDENBERG, V.

The widespread use of chemistry is a most important line of technological progress ("The widespread use of chemistry in the Soviet economy.") by N.N.Nekrasov. Reviewed by A.Efimov, V.Fridenberg.) Vop. ekon. no.11:106-110 N '56.

FRIDENBERG, V.O., kandidat ekonomicheskikh nauk.

Industry of heavy organic synthesis in capitalist countries. Khim. nauka i prom. 2 no.1:108-116 '57. (MLRA 10:4)
(Chemistry, Organic--Synthesis)

FRIDENBERG, V.

Further combining processes in industry. Vop.ekon. no.1:63-66 Ja '59. (MIRA 12:1)
(Industrial organization)

FRIDENBERG, V. G.

FRIDENBERG, V.G., kand.ekonom. nauk

Combined production in the chemical industry. Zhur.VKHO 9 no.1: 52-58 '64. (MIRA 17:3)

KONDRAT'YEV, Ye.V., prof.; FRIDENBERG, Ye.E., ass.

[Hydrolysis] Gidroliz; uchebnoe posobie. 2. izd. Moskva, Mosk. in-t stali i splavov. 1962. 15 p. (MIRA 16:11)

(Hydrolysis)

VASIL'YEVA, Z.G.; GRANOVSKAYA, A.A.; MAKARYCHEVA, Ye.P.; TAPEROVA, A.A.; FRIDENBERG, Ye.E.; DANILEVICH, T.A., red.

[Laboratory work in general chemistry; semimicroanalysis] Laboratornyi praktikum po obshchei khimii; polumikrometod. 2. izd. Moskva, Khimiia, 1965. 346 p. (MIRA 18:7)

FRIDENSHTEYN, A. Ya.

"Histogenesis of the Visceral Skeleton of Higher Vertebrates." Thesis for degree of Cand. Medical Sci. Sub 24 Apr 50, Moscow Medical Inst, Ministry of Health RSFSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

FRIDENSHTEYN, A.Ya.

Osteogenesis in kidneys. Arkh. anat., Moskva 29 no.4:75-78 July-Aug 1952. (CLML 23:2)

1. Of the Department of Histology (Head -- Prof. A. N. Studitskiy) of Moscow Medical Institute of the Ministry of Public Health RSFSR, now known as Ryazan' Medical Institute imeni I. P. Pavlov (Director -- Docent Ye. N. Kovalev).

TOGUNOVA, A.I.; FRIDENSHTEYN, A.Ya.

Morphological characteristics of the vaccinal process in experimental percutaneous vaccination against tuberculosis. Zhur. mikrobiol. epid. i immun. no.11:21-28 N '54. (MLRA 8:1)

1. Iz otdela spetsificheskoy profilaktiki i terapii tuberkuleza (zav. prof. A.I.Togunova) Instituta epidemiologii i mikrobiologii imeni pochetnogo akademika N.F.Gamalei AMN SSSR (dir. prof. G.V. Vygodchikov)

(BCG VACCINATION,
morphol. aspects in guinea pigs)

FRIDENSHTEYN, A.Ya.

Morphology of the vaccine process following experimental intradermal BCG vaccination. Probl. tub. no.5:49-55 S-O '55(MLRA 8:11)

1. Iz otdela spetsificheskoy profilaktiki i terapii tuberkulesa zav. prof. A.I.Togunova) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR (dir. deystvitel'nyy chlen AMN SSSR prof. G.V.Vygodchikov)

(BCG VACCINATION, experimental, intradermal)

FRIDENSHTEYN, A.Ya., (Moskva)

Artificial extra skeletal osteogenesis. Usp. sovr. biol. 39 no.3:299-307 My-Je '55. (MLRA 8:11)
(BONE TISSUE, physiology, osteogenesis)

USSR / Microbiology - General Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38331.

Author : Togunova, A. I., Khrapkova, N. V., Fridenshteyn, A. Ya.

Inst : Not given.

Title : Controlled Modification of Tubercle Bacilli.

Orig Pub: V sb.: Izmenchivost mikroorganizmov, M. Medgiz, 1956, 124-139.

Abstract: Virulent strains No. 1 and 12 bovine type tubercle bacilli were used. Variant No. 137 was obtained as a result of subjective strain No. 1 to a subbacteriostatic quantity of antibiotic D (which possesses capillary active properties). In subsequent cultivation and selection of colonies 6 new variants were isoloated. Some had reduced virulence, and one had a marked immuno-

Card 1/3

USSR / Microbiology - General Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38331.

Abstract: erties in the indicated strains with BCG and M. Praga yielded protective indices for strain No. 35 of 91.9-91.8%; for BCG--75.2%; and for M. Praga--82.6%. Guinea pigs gave a crossed tubercle reaction with tuberculins prepared from strains No. 35, 2, BCG, and the standard.

Card 3/3

FRIDENSHTEYN, A. YA.

"The Morphology of a Vaccine Process During Experimental Transcutaneous Vaccination with BCG." Proceeding of Inst. Epidem and Biological im. Gamaleya 1954-56.

Division of Specific Prophylaxis and Therapy of Tuberculosis, Togunova, A. I., professor, head, Inst. Epidem and Microbiol. im. Gamaleya. AMS USSR

SO: Sum1186, 11 Jan 57.

FRIDENSHTEYN, A. YA., and TOGUNOVA, A. I.

"Morphological Characteristics of a Vaccine Process During an Experimental Cutaneous Vaccination Against Tuberculosis." Proceedings of Inst.Epidem and Microbiol im. Gamaleya, 1954-56.

Division of Specific Prophylaxis and Therapy of Tuberculosis, Togunova, A. I., professor, head, Inst. Epidem and Microbiol. im. Gamaleya AMS USSR.

SO: Sum 1186, 11 Jan 57.

USSR/Human and Animal Morphology - Normal and Pathological. S
Skeleton. Supporting Connective Tissue.

Abs Jour : Ref Zhur Biol., No 11, 1958, 50339

Author : Fridenshteyn, A.Ya.
Inst :
Title : Histochemistry of the Bone Tissue and Certain Problems of the Histogenesis of the Skeleton

Orig Pub : Uspekhi sovrem. biologii, 1956, 42, No 2, 249-258

Abstract : A bibliographical review. The importance of alkaline phosphatase, polysaccharides, nucleinic acids and mineral salts in the formation of bone matrix is pointed out. The histochemical investigations confirm the ideas as to the leading role of the osteoblast in the ontogenesis of the bone and aid to appraise the interrelationship of the cartilaginous tissue and mesenchyma in the process of ossification. -- N.F. Turova

Card 1/1

FRIDENSHTEYN, A.Ya.

Distribution of nucleic acids in specific granulomas in experimental tuberculous infections and in vaccinal processes. Biul.eksp.biol. med. 42 no.7:67-71 Jl '56. (MLRA 9:9)

1. Iz otdela spetsificheskoy profilaktiki i terapii tuberkuleza (zav. prof. A.I.Togunova) Instituta epidemiologii i mikrobiologii imeni N.I.Gamalei (dir. - deystvitel'nyy chlen AMN SSSR prof. G.V.Vygodchikov) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR G.V.Vygodchikovym.

(TUBERCULOSIS, experimental,
nucleic acids in granulation tissues (Rus))
(NUCLEIC ACIDS, metabolism,
granulation tissue in exper. tuberc. (Rus))

FRIDENSHTEYN, A.Ye.

Morphology of osteogenetic interaction between the transitional epithelium and connective tissue. Dokl.AN SSSR 107 no.4:617-619 Ap '56. (MLRA 9:7)

1.Predstavlene akademikom I.I.Shmal'gauzenom.
(EPITHELIUM) (CONNECTIVE TISSUES)

FRIDENSHTEYN, A.Ya.

Histogenesis of ectopic bone tissue formed under the influence of transitional epithelium. Dokl.AN SSSR 108 no.2:359-361 My '56. (MLRA 9:9)

1.Predstavlena akademikom I.I.Shmal'gauzenom.
(Bone) (Epithelium)

USSR / General Biology. General Histology. B-3

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 47551

Author : Fridonshteyn, A. Ya.
Inst : Academy of Sciences USSR
Title : Polysaccharides in the Transitional Epithelium During Experimental Ectopic Osteogenesis.

Orig Pub : Doklady Akad Nauk SSSR, 111, No 2, 497-500 (1956)

Abstract : Homeotransplantation of crushed mucosa of the gallbladder of guinea pigs to a location beneath the fascia of the right abdominal muscle is reported. The integumentary and the interstitial cells of normal transitional epithelium of the gallbladder are very rich in glycogen (G). After transplantation G accumulates in the surface cells during the typical growth of the new epithelial layer. In epithelium which develops atypically a partial disintegration of the layer is observed 7-10 days after transplantation together

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USSR / Gonoral Biology. Gonoral Histology. B-3

Abs Jour : Rof Zhur - Biol., No 11, 1958, No 47551

Abstract : subsoquontly, tho polysaccharidos ponotrato tho cystal layor /polost tsisty/ as a rosult of tho socrotory procoss. During atypical dovolopmont tho G polysaccharidos ontor tho connoctivo tissuos and socrotion in tho cystal layor is disruptod. Tho ostoogonotic proportios of transitional opitholium should thorofore bo oxplainod by tho motaplasia of somo substancos, undotorminod but always prosont in opitholium, to connoctivo tissuo.

Card 3/3

COUNTRY : USSR
CATEGORY :

ABS. JOUR. : RZBiol., No. 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : a stage of formation of secondary cartilage from osteoblasts, followed by ossification. This type of skeletal development became known as metachondral ossification. -- V. V. Polevtsova.

CARD: 2/2

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FRIDENSHTEYN, A.

20-5-47/48

AUTHOR: Fridenshteyn, A. Ye.

TITLE: Osteogenesis Occurring Under the Influence of Gall-Bladder Epithelium (Histogenesis and Histochemical Descriptions) (Kosteobrazovaniye pod vliyaniyem epiteliya zhelchnogo puzyrya (Gistogenez i gistokhimicheskiye kharakteristiki))

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 888 - 891 (USSR)

ABSTRACT: The transition epithelium of the urinary passage has, as it is known, in mammalia an osteogenetic activity. On the other hand it was observed that the bony tissue can also be formed on the walls of the gall bladder. The present investigations are an attempt to carry out a morphological analysis of the nature of these phenomena on the strength of the data valid for the transition epithelium. The author carried out a homotransplantation of the comminuted gall bladder wall under the fascium (fastsiya) of the straight ventral muscle of the guinea pig. The obtained results show that the induction osteogenesis is effected by growing not differentiated gall bladder epithelium. The atypical ratio between the epithelium and the connective tissue serves as a morphological expression of the osteogenetic activity by which the content of the cytoplasm

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Osteogenesis Occurring Under the Influence of Gall-Bladder Epithelium

for the osteogenesis. It facilitates only the penetration of the osteogenetic substances into the connective tissue which in certain differentiation stages are contained in two observed kinds of epithelium. It is essential that in contrast to the transition epithelium the bony tissue induction takes place by the gall bladder epithelium in the case of a histochemically imperceptible activity of the alkaline phosphatase. There are 4 figures, and 10 references, 5 of which are Slavic.

PRESENTED: June 27, 1957, by I. I. Shmal'gauzen, Academician

SUBMITTED: June 25, 1957

AVAILABLE: Library of Congress

EXCERPTA MEDICA Sec 14 Vol 13/9 Radiology Sept 59

1705. HISTOCHEMICAL STUDY OF THE PHAGOCYTIC PROCESSES IN RABBITS' APPENDICES UNDER X-RAY IRRADIATION (Russian text) - Fridenshtein A. Ya. - MED. RADIOL. 1958, 3/4 (56-64) Illus. 6

Phagocytosis was studied in the appendicular wall in normal and irradiated rabbits. Histochemical methods of detection of polysaccharides were used. It appeared that considerable quantities of the microbes which constitute the natural flora of the large intestine penetrate through the epithelium of the appendix in normal adult rabbits. These microbes are seized by reticular cells of the lymphoid follicles and are digested in the process of multiphasic phagocytosis. As a result of this many substances formed in the decomposition of these microorganisms are deposited in the multiplication centres of the follicles. The greater part of these substances give a positive reaction for polysaccharides. Total X-ray irradiation in a dose of 600-800 r. causes disturbance of the phagocytic process, referred to above: phagocytosis by the macrophages becomes incomplete and the deposition of the substances formed in the destruction of microbes becomes disturbed. Evidently, phagocytic protection in the intestinal wall plays an important part in natural immunity and the development of radiation bacteraemia is connected with a disturbance of this reaction by irradiation. (XIV, 1, 5)

Dept. Medical Microbiology, Inst. Epidemiology + Microbiology im. N.F. Gamaleya, AMN SSR

TROITSKIY, V.L., TUMANYAN, M.A., FRIDENSHTEYN, A.Ya.

Studies on the effect of ionizing radiations on natural immunity. Zhur.mikrobiol. epid. i immun. 29 no.6:3-9 Je '58 (MIRA 11:7)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(DYSENTERY, BACILLARY, immunology,
eff. of x-rays on natural immun. in monkeys (Rus))
(ROENTGEN RAYS, effects,
on dysenterial natural immun. in monkeys (Rus))

FRIDENSHTEYN, A.Ya. (Moskva)

Histogenetic factors of osteogenesis. Usp.sovr.biol. 46 no.1:75-91 Jl'Ag '58 (MIRA 11:9)

(BONE AND BONES, physiology,
osteogenesis, histogenic factors, review (Rus))

FRIDENSHTEYN, A.Ya.

Osteogenic factors and secretory function of the transitional epithelium. Biul. eksp. biol. i med. 46 no.11:108-113 N '58. (MIRA 12:1)

1. Iz otdela meditsinskoy mikrobiologii (zav. - chlen-korrespondent AMN SSSR V. L. Troitskiy) Instituta epidemiologii, mikrobiologii imeni N.F. Gamalei (dir. - prof. S.N. Muromtsev) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR G.V. Vygodchikovym.

(EPITHELIUM, physiol.
transitional epithelium, osteogenic properties (Rus))
(BONE AND BONES,
osteogenic properties of transitional epithelium (Rus))

20-119-1-51/52

AUTHOR: Fridenshteyn, A. Ya.

TITLE: The Secretory Function of the Transitional Epithelium and the Histogenetic Activity of the Secretion (Sekretornaya funktsiya perekhodnogo epiteliya i gistogeneticheskaya aktivnost' sekreta)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 185-188 (USSR)

ABSTRACT: In the earlier reports (references 1-3) it was proved that the osteogenetic activity of the transitional epithelium which manifests itself under experimental conditions is connected with certain displacements in the differentiation of the epithelial layer. These displacements are to be evaluated as indices of the secretion which is directed from the epithelium into the connective tissue lying under it. There are reasons for the assumption that the osteogenetic factor is separated in the course of this experimentally caused secretory process. In grafts of the transitional epithelium where the development of the bony tissue is induced around the epithelial cysts the secretion passes through the surface of the epithelial layer into the cavity of the cyst (ref. 3). The object of secretion

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are polysaccharides and a flakelike protein substance. There are reasons for the assumption that in the secretion of the cysts a factor or factors are contained which cause the osteogenesis. For these reasons the secretory activity of the entire epithelial layer must be specially studied. Three experimental series were performed with rabbits: I. By a ligature of the artery and vein of the kidney the formation of urine in the left kidney was stopped. In spite of the farreaching degeneration the transitional epithelium of the pelvis of kidney kept the viability. It is known that under these circumstances the formation of bony and of the myeloid tissue is induced in the renal port. Series II: 4-12 days after the above-described ligature of the vessels the left ureter was tied up in the lower third. The blood circulation of the pelvis of kidney is kept up under these conditions, whereas the drainage stops. Series III: The vessels of the left kidney were tied up as in series II. 4-15 days later the left ureter was tied up in the lower third and cut through above this place. Its proximal and distal part were separately sewn to the fatty tissue. 10-215 days after the ligature of the vessels the animals of all series were

The Secretory Function of the Transitional Epithelium and the Histogenetic Activity of the Secretion 20-119-1-51/52

PRESENTED: December 6, 1957, by I. I. Shmal'gauzen, Member, Academy of Sciences, USSR

SUBMITTED: November 28, 1957

Card 4/4

STUDITSKIY,A.N., otv.red.; GRAYEVSKIY,E.Ya., red.; GRIGOR'YEV,T.A., red.; YELISEYEV,V.G., red.; ZBARSKIY,I.B., red.; LIOZNER,L.D., red.; MITSKEVICH,M.S., red.; FRIDENSHTEYN,A.Ya., red.; KHRUSHCHOV,G.K., red.; CHENTSOV,Yu.S., red.; SMIRNOV,Z., red.; LAVRENT'YEVA,G., tekhn.red.

[Transactions of the Second Histological Conference; plastic and restorative processes] Plasticheskie i vosstanovitel'nye protsessy; trudy Vtoroi gistologicheskoi konferentsii. Moskva, Mosk. nauchn.ob-vo anatomov, gistologov i embriologov, 1959. 319 p. (MIRA 14:5)

1. Kafedra gistologii Moskovskogo gosudarstvennogo universiteta im.M.V.Lomonosova, Moskva (for Studitskiy). 2. Laboratoriya radiobiologii Instituta morfologii zhivotnykh im.A.N.Severtseva AN SSSR, Moskva (for Grayevskiy, Zbarskiy) 3. Kafedra gistologii, i embriologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, Leningrad (for Grigor'yev). 4. Kafedra gistologii i embriologii 1-go Meditsinskogo instituta im.Sechenova, Moskva (for Yeliseyev). 5. Gruppa biokhimii kletochnykh struktur Instituta morfologii zhivotnykh im.A.N.Severtsova AN SSSR, Moskva (for Zbarskiy). 6. Laboratoriya rosta i razvitiya Instituta eksperimental'noy biologii AMN SSSR, Moskva (for Liozner). 7. TSentral'naya nauchno-issledovatel'skaya Laboratoriya 2-go Moskovskogo meditsinskogo instituta im.N.I.Pirogova, Moskva, (for Khrushchov).

(HISTOLOGY--CONGRESSES)

FRIDENSHTEYN, A.Y.

Conditions and histochemical characteristics of the osteogenic activity of transitional epithelial grafts. Biul. eksp. biol. i med. 116-122 Ap '59. (MIRA 12:7)

1. Iz otdela meditsinskoy mikrobiologii (zav. - chlen-korrespondent AMN SSSR V.L. Troitskiy) Instituta epidemiologii i mikrobiologii imeni N. F. Gamalei (dir. - prof. S. N. Muromtsev) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR G.V. Vygodchikovym.

(EPITHELIUM, transpl.
osteogenesis in transitional epithelial graft (Rus))
(OSSIFICATION,
same)

FRIDENSHTEYN, A.Ya.

Aleksandr Nikolaevich Studitskii; on the 50th anniversary of his birth. Arkh.anat.gist.i embr. 37 no.10:118-120 O'59.
(MIRA 13:4)

(BIOGRAPHIES)

SOV/20-126-2-59/64

17(4)
AUTHOR: Fridenshteyn, A. Ya.

TITLE: Differentiation Variants of the Transitional Epithelium and Its Osteogenetic Activity (Varianty differentsirovki perekhodnogo epiteliya i yego osteogeneticheskaya aktivnost')

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 2, pp 438-441 (USSR)

ABSTRACT: The activity mentioned in the title occurs in the case of certain changes of the differentiation (Refs 1-4). It is apparently connected with the separation of polysaccharides of the glycogen type from the epithelium. As is known the metaplastic processes cornification and gelatinization are typical of the epithelium. They are accompanied by shifts in carbohydrate metabolism. It was interesting to analyze the kind of connection between the osteogenetic activity and the differentiation of the epithelium in the mentioned directions, and to compare the histochemical characteristics of the epithelial layer in all these cases. For this purpose the author exposed the urinary bladder by opening the abdomen (laporotomy) and introduced 1 cm^3 of a iodine solution of 1% in 70° alcohol into the bladder after the urine had been sucked off. The

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Differentiation Variants of the Transitional Epithelium and Its Osteogenetic Activity

animals were killed after 7, 12, 20, 30, 40, and 90 days. This operation lead at individual places of the mucous membrane of the urinary bladder to changes of different degrees which are accompanied by reparation processes (Figs 1-3). It was found that the localization of the alkaline phosphatase depends at individual places of the mentioned mucous membrane on the differentiation type of the latter. The changes of the transitional epithelium described in this paper: proliferation as a comparatively little differentiated layer, gelatinization, and cornification are by no means specific of the effect applied (Ref 13). They represent apparently the differentiation variants of the concerning tissue which are most easily realizable under the experimental conditions. The osteogenetic activity of the transitional epithelium is only realized in the case of a certain type of differentiation, however, neither in the case of cornification nor gelatinization. In the case of cornification polysaccharides occur in the epithelial layer parallelly with the disulphide groups. These polysaccharides are not fermented by amylase. It is possible that the histochemically detected glycogen is used for the formation of this mucopolysaccharide. In the case of gelatinization muco-

Differentiation Variants of the Transitional Epithelium and Its Osteogenetic Activity

polysaccharides of the mucin type are formed. It is assumed that this is connected with the glycogen exploitation. In the case of gelatinization and cornification glycogen is accumulated and then transformed in those layers in which the high activity of the alkaline phosphatase lacks (Ref 14). The given data on histochemical shifts in the transitional epithelium emphasize in their totality the important differences in the character of the carbohydrate metabolism and in the exploitation of some of its intermediate products at different differentiation variants of the epithelium. Glycogen the high content of which has hitherto not been explained (Ref 15) plays apparently the role of a plastic, and not an energetic substance. If neither cornification nor gelatinization occur, intermediate products with a glycogen-like histochemical characteristic may penetrate into the connective tissue and here initiate the osteogonesis. It is possible that the transitional epithelium produces a substance which compared to other tissues has the character of a histogenetic factor. It is of interest that a certain connection existed between the skeleton-forming- and the gland function of the skin in the

Differentiation Variants of the Transitional Epithelium and Its Osteogenetic Activity

phylogenesis (Ref 17). There are 3 figures and 17 references, 10 of which are Soviet.

ASSOCIATION: Institut epidemiologii i mikrobiologii im. N. F. Gamaleya (Institute of Epidemiology and Microbiology imeni N. F. Gamaley)

PRESENTED: February 14, 1959, by P. I. Shmal'gauzen, Academician

SUBMITTED: February 6, 1959

FRiDenshTeyn, A. Ya.

USSR

reports to be submitted to the 1st Intl Congress of Histochemistry and Cytochemistry, Paris, France, 25 Aug-3 Sep '60.

BRODSKIY, V. Ya. - "The nucleic acids of the nerve cell's nucleus and cytoplasm"

DOMBKIKH, N. V., VINOGRADOV, V. V. and SUBBOTIN, M. Ya. - "Histochemistry of extraembryonic connective tissue in pathological conditions"

FRIDENSHTEYN, A. Ya. - "Some aspects of carbohydrate metabolism of the transitional epithelium"

GEORGIYEV, G. B. - "The studies on the cell nucleoproteins with the aid of phenol fractionation procedure"

GRIGOR'YEVA, T. A., MEYSEL', M. N., BRUMBERG, Ye. M., BARSKIY, I. Ya. and GUTKINA, A. V. - "Ultraviolet fluorescence microscopy as a new field of histochemistry"

KNYAZEVA, G. D. - "Histochemical characteristics of diphtheric polyneuritis"

KRASNOV, I. B. - "The determination of sulfhydryl groups of proteins by means of the inhibitory-indicator (bromoacetylnitrobenzoic acid) method"

MAKAROV, P. V. - "Cytochemical and autoradiographic analysis of the role of nucleic acids in the synthesis of cellular proteins"

ORLOVSKAYA, G. V. - "The evolution of the protein-polysaccharide composition of cardiac connective tissue in the development of rheumatic process"

POLENOV, A. L. - "Histochemical contribution to the study of di-encephalo-hypophyseal secretion"

PORTUGALOV, V. V. - "Some mechanisms controling the chemical activity of the neuron mitochondria" (A summary of this report has been received by the organizers of the Congress and is included in Group I)
Aspects of histochemistry and the nervous system (This is a proposed report of which the exact title is not yet known. It is listed by general subject matter under Group III)

PRESNOV, M. A. - "Histochemistry in experimental cancer chemotherapy"

ROSKIN, G. I. - "Comparative histochemistry of neurons differing in their function"

SHABADASH, A. L. - "Presence of ribonucleoproteins in mitochondria of different animal cells and their functional importance" and "Cytochemical and cytophysical peculiarities of nerve tissues biological organization"

STRUKOV, A. I. - "Histochemical examinations of connecting tissues in the light of recent pathological studies"

TUSTANOVSKIY, A. A. - "A comparative physical and chemical characteristic of precollagen and collastromine"

VASIL'YEV, Yu. M. - "Histochemical studies of the connective tissue, changes observed in the source of development of induced sarcoma in rats"

ZBARSKIY, I. B. - "Proteinic and nucleic composition of nuclear structures"

ZBARSKIY, I. B. and PEREVOSHCHIKOVA, K. A. - "On the role of cell nucleus and its fractions in protein biosynthesis measured by the incorporation of labeled amino acids"

FRIDENSHTEYN, A. Ya., Doc Biol Sci -- (diss) "A Histogenetical Analysis of Induced Osteogenesis." Moscow, 1960, 16 pp, (Academy of Sciences USSR; Institute of Animal Morphology im A. N. Severtsov) 300 copies, no price given -- list of the author's works pp 15-16 (KL, 21-60, 120)

SOBOLEV, S.M.; FRIDENSHTEYN, A.Ya.

Mechanism of phagocytic disorders in the appendix in X-irradiated rabbits. Med. rad. 5 no.11:36-40 N '60. (MIRA 13:12)
(PHAGOCYTOSIS) (X RAYS--PHYSIOLOGICAL EFFECT)
(APPENDIX)

FRIDENSHTEYN, A.Ya. (Moskva, Kalyayevskaya ul., 5, kv. 145)

Comparison of the osteogenetic activity of transitional epithelium and epithelium of the gall bladder in grafts. Arkh.anat.gist.i embr. 38 no.4:61-71 Ap '60. (MIRA 14:5)

1. Otdel radiatsionnoy mikrobiologii immunologii (zav. - chlen-korrespondent AMN SSSR V.L.Troitskiy) Instituta epidemiologii i mikrobiologii imeni Gamaleya AMN SSSR.
(BLADDER—TRANSPLANTATION) (GALL BLADDER—TRANSPLANTATION)

FRIEDENSHTEYN, A. YA.

(d)

Induction of Haemopoietic Tissue in Irradiated Animals

V. L. Troitski and A. J. Friedenstein

Regeneration of irradiated haemopoietic tissue is due to multiplication of those haemopoietic cells which survived irradiation in spite of their high radiosensitivity. The speed of multiplication depends on extrinsic factors. Moreover, there is the possibility that relatively radioresistant reticular cells of irradiated bone marrow differentiate into haemopoietic elements. This can occur if extrinsic factors responsible for such transformation are present, and if the irradiated reticular cells do not lose their haemopoietic potency. It was the aim of this work to study the possibility of stimulating haemopoiesis after irradiation. We used the ability of homografted transitional epithelium to induce bone-formation in normal guinea pigs. Induction can be achieved also in irradiated hosts. In this case haemopoiesis around the transplanted epithelium becomes more pronounced and often is independent of osteogenesis. Pre-irradiation grafting showed that different phases of induction had different radiosensitivities. It is possible to induce haemopoiesis within 5-8 days after irradiation if the interval between transplantation and irradiation is chosen correctly. Normally, regeneration in bone-marrow itself is not yet expressed at this time after irradiation.

Homografted transitional epithelium appears to be either an inducer or promoting factor which provides better conditions for differentiation of haemopoietic cells. Available data make the first possibility more probable. Induction of haemopoiesis from tissues of the irradiated organism itself removed the hazard of secondary reactions. However, the problem is the availability of the essential quantity of haemopoietic tissue. To solve this problem it is necessary to use the inducing substance from transitional epithelium instead of epithelial cell grafting. Certain morphological and histochemical data about the nature of inducing factor are given.

Gamaleya Institute of Epidemiology and Microbiology, Academy of Medical Sciences of the USSR, Moscow

(End of Session)

report presented at the 2nd Intl. Congress of Radiation Research,
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513710013-0"

FRIDENSHTEYN, A.Ya.

Effect of sublethal X-ray irradiation on the induction process caused by transitional epithelium in the connective tissue. Biul. eksp.biol.i med. 53 no.6:80-84 Je '62. (MIRA 15:10)

1. Iz otdela radiatsionnoy mikrobiologii i immunologii (zav. - deystvitel'nyy chlen AMN SSSR V.L.Troitskiy) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei (dir. - chlen-korrespondent AMN SSSR O.V. Baroyan) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.L.Troitskim.

(X RAYS--PHYSILOGICAL EFFECT)
(EPITHELIUM--TRANSPLANTATION)
(CONNECTIVE TISSUE)
(OSSIFICATION)

FRIDENSHTEYN, A.Ya.

Humoral nature of the osteogenetic activity of transitional epithelium. Biul.eksp. biol. i med. 54 no.12:82-84 D'62.
(MIRA 16:6)

1. Iz otdela radiatsionnoy immunologii i mikrobiologii (zav.-deystvitel'nyy chlen AMN SSSR V.L.Troitskiy) Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. - prof. P.A. Vershilova) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.L.Troitskim.
(EPITHELIUM) (OSSIFICATION)

PETRAKOVA, K.V.; TOLMACHEVA, A.A.; FRIDENSHTEYN, A.Ya.

Bone formation following marrow transplantation in diffusion chambers. Biul. eksp. biol. i med. 56 no.12:87-91 D '62.
(MIRA 17:11)

1. Otdel radiatsionnoy mikrobiologii i immunologii (zav. M.Ya. Tumanyan) Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. - prof. P.A. Vershilova) AMN SSSR, Moskva.

FRIDENSHTEYN, A.Ya.; GEL'FAND, I.M. (Moskva)

Possible mechanism of changes in immunological tolerance.
Usp. sovr. biol. 55 no.3:428-439 My-Je'63 (MIRA 17:3)

FRIDENSHTEYN, A. Ya. (Moscow)

"L'induction de tissus hematopietiques."

report submitted for Colloq on Allogenic Hematopoietic Cell Transplant, Paris, 7-9 Sep 64.

FRIDENSHTEYN, A.Ya. (Moskva, ul. Frunze 13, kv.29)

Immunological reactions and integrity of the organism. Arkh. anat., gist. i embr. 46 no.1:80-87 Ja '64. (MIRA 18:4)

1.Laboratoriya immunomorfologii otdela radiatsionnoy mikrobiologii i immunologii Instituta eksperimental'noy meditsiny imeni Gamaleya AMN SSSR, Moskva.

LURIYA, Ye.A.; FRIDENSHTEYN, A.Ya. (Moskva)

Role of the thymus in immunity. Usp. sovr. biol. 57 no.2:269-282 Mr-Ap '64. (MIRA 17:4)

PETRAKOVA, K.V.; [illegible]

Resorption of homografts of the transitional epithelium inducing osteogenesis in the surrounding connective tissue. Biul. eksp. biol. i med. 59 no.2:98-101 F '65.

(MIRA 18:7)

1. Otdel radiatsionnoy mikrobiologii i immunologii (zav. - deystvitel'nyy chlen AMN SSSR prof. V.L. Troitskiy [deceased]) Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. - prof. O.V. Baroyan) AMN SSSR, Moskva.

L 3878-66 EWT(1)/EWA(j)/EWA(b)-2 JK

AM5023889 BOOK EXPLOITATION UR/

616-001.28-07:612.017.1+616-001.28-07:616.9-097-07

Troitskiy, V. L.; Kaulen, D. R.; Tumanyan, M. A.; Fridenshteyn, A. YA.; Chakhava, O. V.

Radiation immunology (Radiatsionnaya immunologiya) Moscow, Izd-vo "Meditsina", 1965. 374 p. illus., biblio. (at head of title: Akademiya meditsinskikh nauk SSSR.) 2800 copies printed.

TOPIC TAGS: radiation immunology, ionizing radiation, lymphoid tissue transplantation, anaphylaxis, antibody formation, antitoxic immunity, immunological reactivity, hemapoietic tissue

ABSTRACT: This book is intended for scientists, radiobiologists, immunologists, and medical students. As stated by the authors, radiation immunology has assumed considerable significance in solving such problems as the loss of immunity due to irradiation and in the solution of some theoretical aspects of general immunology. This monograph is devoted to the effect of irradiation on immunological processes and methods of inducing the immunological reactivity in irradiated animals. Cellular immunology, the problems

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of allergy and anaphylaxis, tolerance, tissue transplantation, and antiradiation therapy by transfusion of hemapoietic tissue are discussed. The book includes data compiled by V. L. Troitskiy (deceased), whose work has been supplemented by the authors, including experimental data obtained from the Department of Radiation Immunology and Microbiology of the Institute of Epidemiology and Microbiology im. N. F. Gamaleya, Academy of Medical Sciences, USSR. 55

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SUB CODE: LS SUBMITTED: 13Feb65 NO REF SOV: 229

OTHER: 455

BVK

Card 3/3

FRIDENSHTEYN, Ya. B., inzhener; MAKAL'SKIY, I.

Problems of further improving coastwise cargo transportation tariffs.
Mor.flot 17 no.3:6-8 Mr '57. (MLRA 10:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut ekonomiki i ekspluatatsii vodnogo transporta.
(Coastwise shipping--Rates)

FRIDENSTEIN, Ya. B., and KEILIN, A. D.

"Agencies for Sea-going Ships", published by State Publishers of Sea Transport Literature, Moscow, 1940

FRIDENSHTEYN, Ya., yurist

Responsibility for the nonfulfillment of the transportation plan for export and import cargoes. Mor. flot 23 no.6:10-11 Je '63. (MIRA 16:9)

(Freight and freightage) (Shipping)

YUDENICH, G.I.; FRIDENSON, B.D.; KONOVALOVA, G.A.

Using fine limestone gravel instead of quartz sands in making concrete. Suggested by G.I.Iudenich, B.D.Fridenson, G.A. Konovalova. Rats.i izobr.predl.v stroi. no.14:4 '60. (MIRA 13:6)

1. Po materialam Moskovskogo zavoda zhelezobetonnykh izdeliy No.162, g.Lyublino, Moskovskoy oblasti, Shkol'naya ul., d.7. (Gravel) (Concrete)

FRIDENSON, V.M.

12512 Chromium Plating of Cutting Tools. M. E. Gol'dshtein and V. M. Fridenson. Henry Brutcher Translation No. 3720, 7 p. (From Stanki i Instrument, v. 26, no. 7, 1955 p. 26-28.) Henry Brutcher, Altadena, Calif.

Complete procedure for the controlled Cr plating of various tools to a thickness of 2 to 3μ.

ACC NR: AM5022164 Monograph UR/

Fridenson, YEvgeniy Sergeyevich

Future of rocket engines (Budushcheye raketnykh dvigateley) Moscow, Voyenizdat M-va obor. SSSR, 1965. 108 p., illus., biblio. 1000 copies printed. Series note: Raketnaya tekhnika

TOPIC TAGS: rocket engine, nuclear rocket engine, thermal rocket engine, electric rocket engine, photon engine, hybrid propellant engine, chemical rocket engine

PURPOSE AND COVERAGE: This book is intended for enlisted men and non-commissioned officers in the rocket troops, and for those interested in rocketry. The book deals with prospects for improving existing engines and for the development of rocket engines based on new principles. The material in the book, the numerical data, data on engine systems, and assumptions on engine-development trends are based on open Soviet and non-Soviet literature.

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ACC. NR: AM5022164

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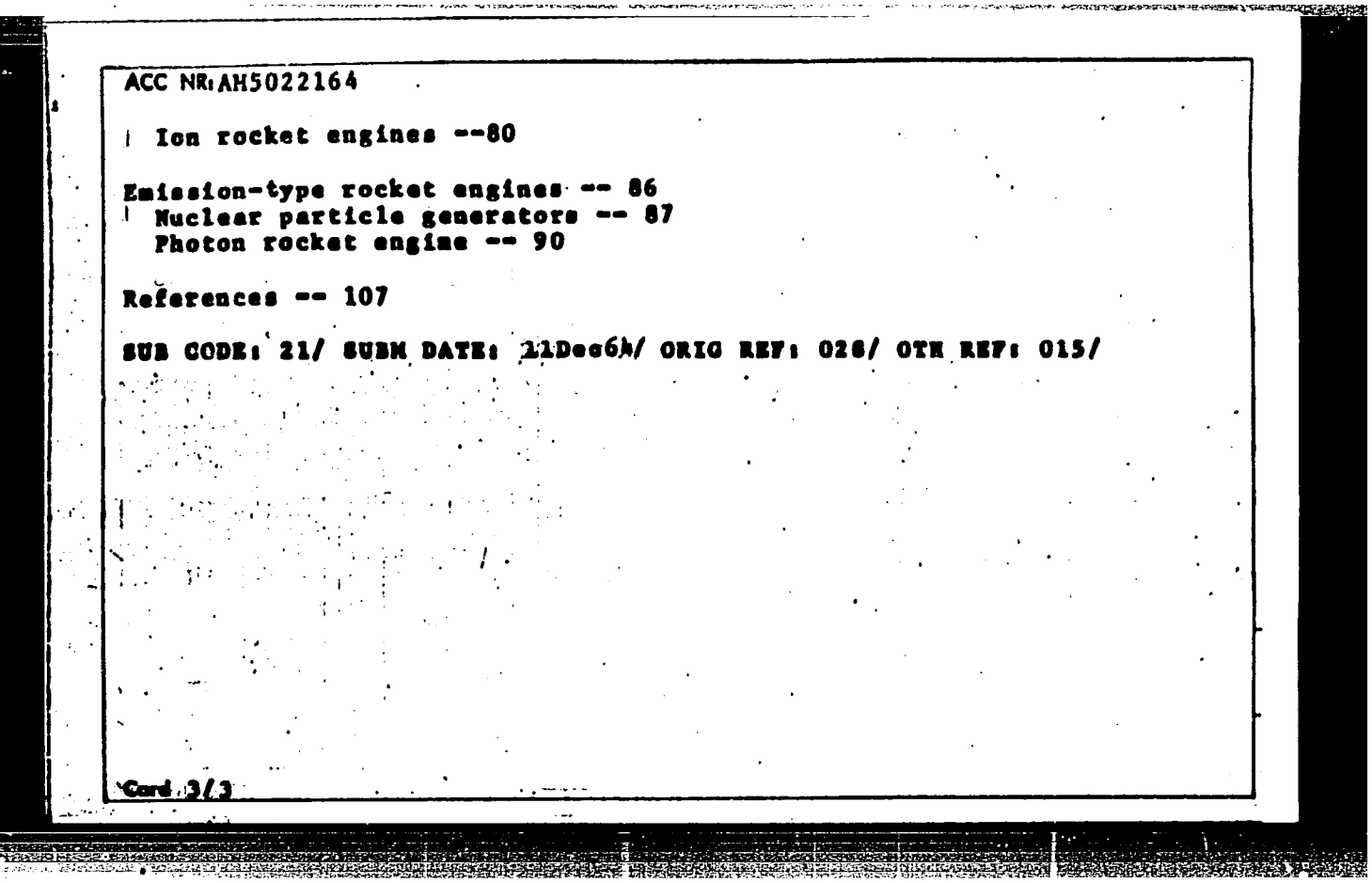

ACC NR: AH5022164

Ion rocket engines --80

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Photon rocket engine -- 90

References -- 107

SUB CODE: 21/ SUBM DATE: 21Dec64/ ORIG REF: 028/ OTH REF: 015/

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L 19709-65 EEO-2/EWI(j)/EWT(d)/FSF(h)/FSS-2/EWG(r)/EWT(l)/EWP(m)/EWG(k)/EWT(m)/T-2/FS(v)-3/EEC(k)-2/EWP(f)/EWG(v)/EEC-4/EPR/EPA(w)-2/EWG(a)/EPA(bb)-2/EWG(c)/EWA(m)-2/EWA(h)/FS(b) Pz-6/Po-4/Pd-1/Pab-10/Pe-5/Pq-4/Pac-4/Pf-4/Ps-4/Pae-2/Peb/P1-4 IJP(c)/AEDC(b)/SSD/BSD/AFWL/ASD(a)-5/AFETR/AFTC(a)/ESD(gs)/ESD(si) JWA/JHB/TT/BW/WW/GW

ACCESSION NR: AP5001586 S/0256/64/000/009/0067/0071

AUTHOR: Fridenson, Ye. S. (Engineer, Colonel)

TITLE: Photon reaction engine

SOURCE: Vestnik protivovozdushnoy oborony, no. 9, 1964, 67-71

TOPIC TAGS: photon, photon reaction engine, electromagnetic energy, rocket propulsion, light, outerspace travel

ABSTRACT: The photon reaction engine, in which thrust is obtained from a stream of photons, has lately been accorded a special place in the technical scientific literature. A photon reaction engine is shown graphically in Fig. 1 of the Enclosure. The main thing in building a photon reaction engine is to find a powerful and light-weight source of energy. Theoretically, the mode of operation of such an engine can be visualized as follows: A powerful photon bundle, generated by electromagnetic radiation, strikes a mirror mounted in the rocket and is reflected from it as a beam; the pressure of the photon flow sets the reflector in motion and, consequently, the rocket is pushed in a direction opposite to that of the reflected

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ACCESSION NR: AP5001586

flow. Nuclear reactions and other processes through which electromagnetic energy is generated could be used as sources of radiation. The paper concludes with a statement on the difficulties which are being encountered in designing a photon reaction engine, and the emphasis which should be placed on the need for continued research and development work in this field. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: PR

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L 19709-65
ACCESSION NR: AP5001586

ENCLOSURE: 01

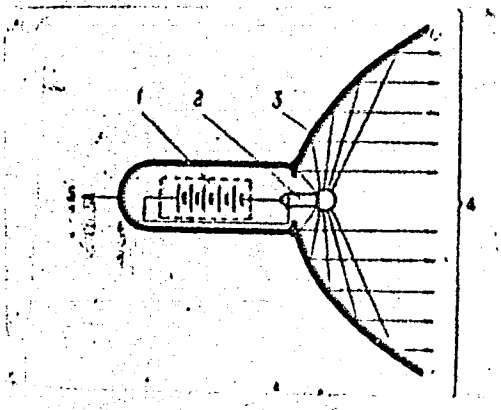

Fig. 1. Schematic drawing of a photon reaction engine

1 - Electric energy source (galvanic cell); 2 - photon emitter; 3 - parabolic mirror which reflects the photons; 4 - parallel light bundle; 5 - direction of light pressure.

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FRIDENSON, Yevgeniy Sergeyevich; VRUBLEVSKIY, A.V., red.

[Future of rocket engines] Budushchee raketnykh dvigatelei. Moskva, Voenizdat, 1965. 108 p. (MIRA 18:2)

ABELEV, Yu.M., doktor tekhn. nauk, prof.; ABELEV, M.Yu., inzh.; BAKHOLDIN, B.V., kand. tekhn. nauk; BEREZANTSEV, V.G., doktor tekhn. nauk, prof.; VYALOV, S.S., doktor tekhn. nauk; GODES, E.G., inzh.; GORBUNOV-POSADOV, M.I., doktor tekhn. nauk, prof.; DAMATOV, B.I., doktor tekhn. nauk, prof.; DOKUCHAYEV, V.V., kand. tekhn. nauk; KRUTOV, V.I., kand. tekhn. nauk; KSENOFONTOV, A.I., kand. tekhn. nauk; MARIUPOL'SKIY, G.M., kand. tekhn. nauk; MORAREskUL,N.N., inzh.; PERLEY, Ye.M., inzh.; SAVINOV, O.A., doktor tekhn. nauk; SIDOROV, N.N., kand. tekhn. nauk; SMORODINSKIY, N.[illegible]., kand. tekhn. nauk; SOKOLOV, N.M., doktor tekhn.nauk; FEDKIN, A.Ya., inzh.; SHASHKOV, S.A., kand. tekhn.nauk; SHEYKOV, M.L., inzh.; YAROSHENKO, V.A., kand.tekhn.nauk, [deceased]; KHALIZEV, Ye.P., kand. tekhn. nauk, nauchn.red.

[Manual for the designing of industrial plants, apartment houses, and public buildings and structures; foundations] Spravochnik proektirovshchika promyshlennykh, zhilykh i obshchestvennykh zdanii i sooruzhenii; osnovaniia i fundamenty. Leningrad, Stroiizdat, 1964. 268 p.
(MIRA 18:1)

FRIDENTAL', R.M.

Hairy polyp removed from the nasopharynx of a four-day-old infant. Zhur.ush., nos. i gor. bol.22 no.6:61 N-D '62. (MIRA 16:7)

1. Iz otdeleniya bolezney ukha, gorla i nosa (zav.-R.M.Fridental') 1-y Kadiyevskoy gorodskoy bol'nitzy Luganskoy oblasti.
(NOSOPHARYNX—TUMORS) (INFANTS—SURGERY)

FRIDENTAL', R.M.; FEDORENKO, N.M.

Shield for a tracheostoma following extirpation of the larynx.
Zhur. ush., nos. i gorl. bol. 23 no.3:89-90 My-Je'63.(MIRA 16:7)

1. Iz otdeleniya bolezney ukha, gorla i nosa (zav.- R.M.Fridental')
1-y gorodskoy bol'nitsy g. Kadiyevki Luganskoy oblasti.
(TRACHEA--SURGERY) (LARYNX--SURGERY)

DIKUSAR, V.V., kand.tekhn.nauk; FRIDENTAL', S., inzh.

Unit for transporting the concrete mix at the construction site.
Mekh. stroi. 19 no.5:21-23 My '62. (MIRA 15:5)
(Concrete--Transportation)
(Pneumatic-tube transportation)

MALYAR, S.M.; FRIDENTAL, S.Kh.; KATSNEL'SON, Ye.A.; KUZNETSOV, F.F.; LIBER, V.P.; DEGTYAREV, I.T.

Fork lift with hydraulic control for the T-107 tractor loader. Rats. i izobr.predl. v stroi. no.89:6-9 '54. (MLRA 9:6)
(Lumbering--Machinery) (Loading and unloading)

DIKUSAR, V.V., kand. tekhn. nauk; FRIDENTAL', S.Kh.; GOLOVETS, M.N., inzh., red.

[PBM-1 device for the pneumatic transportation of concrete mix; practices of the "Magnitostroi" Trust] Ustanovka PBM-1 dlia pnevmaticheskogo transportirovaniia betonnoi smesi; iz opyta tresta "Magnitostroi." Moskva, Stroiizdat, 1964. 28 p. (MIRA 17:12)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Glavnyy inzhener Upravleniya mekhanizatsii tresta Gosudarstvennogo upravleniya po stroitel'stvu metallurgicheskikh zavodov v Magnitogorske (for Fridental').

DIKUSAR, V.V., kand. tekhn. nauk; FRIDENTAL', S.Kh., inzh.

Using a modernized unit for pneumatic conveying of concrete mixes. Prom. stroi. 42 no.3:18-19 '65. (MIRA 18:7)

1. YUR'YEV, V. YA.; FRIDENTAL', S. M.

2. USSR (600)

4. Soybean

7. Letter to the editor. Sel. i sem. 19 no. 12 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6311

Author : Fridental', S. M.
Inst : Ukr. Scient.-Res. Inst. of Plant Cultiv. Select. and Genetics
Title : The Selection of Common Vetch

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva, selekto. i genet., 1958, No 2, 17-18

Abstract : Different forms and varieties of peas were studied at the institute in 1955-1956 in order to select early ripening fodder varieties with fine seeds. The weight of 1000 seeds of various varieties of vetch in the institute's collection fluctuated between 100 and 448 g during 1956. Vetch of the Khar'kovskiy Bl variety is ready for mowing 58 - 70 days after

Card 1/2

FRIDESH, I. [Frigyes, I.]

Measuring the noise factor of the systems of the phase-pulse modulation. Acta techn Hung 42 no.1/3:301-308 '63.

1. Budapeshtskiy zavod tekhniki svyazi.

FRIDKIN, A. Ya.

FRIDKIN, A. Ya. -- "The Steel Skeletons of Industrial Buildings with Flexible Connections at the Joints." State Planning Inst "Leningrad Industrial Construction Planning." Leningrad, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Knizhnaya Letopis' No 6 1956

SOV/97-58-9-3/13

AUTHORS: Fridkin, A.Ya., Korotkov, P.A., Belobrov, I.K. and Klevtsov, V.A., Engineers

TITLE: Pre-cast Pre-stressed Reinforced Concrete Beams Serving as Support to Bridge Cranes (Sbornyye zhelezobetonnyye predvaritel'no napryazhennyye podkranovyye balki)

PERIODICAL: Beton i Zhelezobeton, 1958, Nr 9, pp 329 - 336 (USSR)

ABSTRACT: The most effective type of beam for supporting bridge cranes, as far as economy of concrete and steel are concerned, is the one that is continuously reinforced. This continuous reinforcing method requires special machinery and equipment. Consumption of concrete and steel in beams reinforced with rods is much higher than those with continuous or batch reinforcement. Beams with rod reinforcement are economical only when heavy cranes are used and reinforcement type 30KhG2S. It is not so economical to use rod reinforcement in beams of 12 m span when compared with similar beams reinforced with batch reinforcement. Leningrad Promstroyproyekt, in conjunction with NIIZhB, is working on a project for pre-stressed reinforced concrete beams 6 and 12 m long, designed to carry cranes with capacity of up to 50 tons.

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Pre-cast Pre-stressed Reinforced Concrete Beams Serving as Support to Bridge Cranes

Figure 1 illustrates beams with rod reinforcement of standard profile and steel Mark 25G2S. The reinforcement is tensioned to 2.5% of its length, not less than 4 700 kg/cm^2; limit of elasticity is 5 000 kg/cm^2. Table 1 shows typical cross-sections of 6 and 12 m rod reinforced beams and gives respective technical data. Table 2 shows typical cross-sections of 6 and 12 m batch reinforced beams and gives respective technical data. The NIIZhB carried out tests with both rod and batch reinforcement of these beams. In the case of beams with batch reinforcement, special anchoring washers were used which were not welded to rods and it was necessary to ascertain the anchoring properties of the reinforcement in the concrete when these washers were omitted. Tests were carried out by Engineer I.K. Belobrov and Candidates of Technical Sciences S.A. Dmitriyev and N.M. Mulin in a laboratory that specialises in the theory of reinforced concrete and reinforcement (Head: Professor A.A. Gvozdev). Figure 3 illustrates horizontal cracks at the end of the beam. The effect of these cracks on the collapse of the end of the beam under testing

Pre-cast Pre-stressed Reinforced Concrete Beams Serving as Support to Bridge Cranes

conditions is described. To prevent the formation of the horizontal cracks at the end of the beams, part of the cross reinforcement at the end was pre-stressed in order to compress the concrete in this part of the beam. Tensioning was 1/6th of the value used for longitudinal reinforcement. No horizontal cracks appeared after this (Figure 4). Illustration of the method and the machines used for the investigation of pre-stressing of beams 6 and 12 m long is given in Figure 5. Figure 6: graph of deflections of crane-carrying beams (PN6-1, PN6-2 and PN6-3) with pre-stressed reinforcement and beam PO6-1 reinforced without pre-stressing. It shows that pre-stressed reinforced beams are twice as strong and crack formations are only one-fourth. The casting of beams 12 m long was made possible by the construction of a machine DN-7. Figure 7 shows the continucus reinforcement of the beam. The concrete used has strength of 400 kg/cm^2 and the reinforcement is of hightensile wires of 3 - 4 mm diameter. Figure 8 shows the method of winding continuous reinforcement and casting two beams. A method

Pre-cast Pre-stressed Reinforced Concrete Beams Serving as Support to Bridge Cranes

of this continuous reinforcing of crane-carrying beams was developed by Candidate of Technical Sciences G.I. Berdichevskiy, and testing of beams was carried out by Engineer V.A. Klevtsov in the laboratory of NIIZhB. Figure 10 gives deformation graph of concrete units of the beam in the middle of its span. Tests show that the strength of the beam is considerable; its deflection was 3.2 - 3.6 mm which is 1/1 800 to 1/1 600 of the span. Table 3 gives values of beams carrying cranes of 30-ton capacity. These values show that the most economical type of reinforcement is the continuous reinforcement of these beams. The Leningrad Promstroyproyekt designed open-lattice type of crane-carrying beam from pre-stressed reinforced concrete (Figure 11). There are 11 figures and 3 tables.

Card 4/4

SOV/97-59-1-17/18

AUTHORS: Fridkin, A.Ya. and Yeliseyev, Yu.A., Engineers

TITLE: Losses of Tensioning in Reinforcement of Pre-Stressed Reinforced Concrete Constructions When Reinforcements are Tensioned Consecutively (Poteri napryazheniy v armature predvaritel'no napryazhennykh zhelezobetonnykh konstruktsiy pri posledovatel'nom natyazhenii puchkov ili sterzhney)

PERIODICAL: Beton i Zhelezobeton, 1959, Nr 1, pp 45-47 (USSR)

ABSTRACT: The pre-tensioning of reinforced concrete constructions results in losses in tensioning if the reinforcement is not tensioned simultaneously. Often the discrepancies are considerable, and this has serious effects upon the construction. Instructions SN 10-57 give a formula for ascertaining these losses in tensioning. This should be used only when the reinforcement is straight and parallel with the axis of the beam. The authors describe a new method of calculation of these losses in tensioning when the reinforcement is not tensioned simultaneously. Theoretical explanations of the calculation and the formulae are given. A practical example of calculation

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Losses of Tensioning in Reinforcement of Pre-Stressed Reinforced Concrete Constructions When Reinforcements are Tensioned Consecutively

is also given. There are 3 figures and 1 table.

Card 2/2

FRIDKIN, A.Ya., inzh.; IL'IN, V.P.; VASIL'YEV, A.P., kand.tekhn.nauk

Large-span roofs made of precast reinforced concrete. Prom. stroi. 39 no.10:49-54 O '61. (MIRA 14:10)
(Roofing, Concrete) (Precast concrete construction)

S/264/62/000/006/008/008
I064/I242

AUTHORS: Fridkin, A.Ya., Il'in, V.P., Terekhov, V.S.

TITLE: Hangar building for line operation and repair shops

PERIODICAL: Referativnyy zhurnal, Vozdushnyy transport. Svodnyy tom, no.6B, 1962, 18, abstract 6B95. (Prom. str-vo, no.12, 1961, 22-26)

TEXT: It is reported that in the SKO GPI (SKO GPI) department of the Leningrad industrial building project a typical hangar design was developed for line operation, maintenance and repair shops, for technical service routine and basic repair of aircraft. The technological part of the project is worked out by the Air project institute. The hangar building contains a one-floor hangar and a three-floor section which accomodates laboratories, service and administration rooms.

[Abstracter's note: Complete translation.]

Card 1/1

FRIDKIN, A.Ya., inzh.; PALATNIKOV, I.B., inzh.

Precast foundations for rotary kilns at cement plants. Prom. stroi. 40 [i.e. 41.] no.3:24-27 Mr '63. (MIRA 16:3)
(Kilns, Rotary--Foundations)

FRIDKIN, A.Ya., inzh.; MARTYNOV, P.F., inzh.

Crane tracks on reinforced concrete crane girders. Prom. stroi. 40 no.2: 44-46 '62. (MIRA 15:7)
(Beams and girders) (Cranes, derricks, etc.)

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Designing and erecting sunk wells of large diameters. Prom stroi 41 no. 12:34-36 D '63. (MIIA 17:5)

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TITLE : Thermal Treatment of Porcelain (K voprosu o termicheskoy obrabotke farfora)

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ABSTRACT :Electrical industrial porcelain (ϕ) is the basic material used in combination with metal parts in a number of very important electrical appliances (air circuit breakers and others). The thermo-elastic properties (the modulus of elasticity, the coefficient of thermal expansion, etc.) of metals and porcelain are different. Ceramic materials obey Hooke's law in a given load interval, but do not have yield properties, and break down when the load is increased within the proportional limit. In addition to this, residual deformation is observed in porcelain after a force applied over a long period of time is removed. Internal stresses are of particularly great importance in porcelain insulators. Research on residual stresses in metals and glass

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Thermal Treatment of Porcelain. (cont.)

has been going on for quite some time, and on electrical ceramic materials it was initiated in 1952 at Gieki. It is chiefly internal stresses of a primary nature that affect the mechanical strength of porcelain insulators. These stresses balance out within areas with dimensions close to those of the given body. These stresses are usually determined by cutting the sample being investigated into parts and measuring the deformations produced during the process. Residual internal stresses can develop during heating and cooling, for example, those due to the heterogenous plastic deformation of individual parts of the ceramic body, as well as to the irregular development of phase changes throughout the volume of the sample. The modification of quartz into porcelain is an example of this. Still another category is that of temporary thermoelastic stresses. Insulators, especially large ones, often break up during discharge of residual internal stresses. Two methods were used in carrying out research on residual internal stresses: 1) the method of boring layer rings; 2) the bar method. They have found wide application in determining residual stresses in metals. By the first method, the stressed state of hollow porcelain cylinders can be determined by successively removing the outer layers and subsequently measuring the deformations (the change of the inner and outer diameters and of the length of the cylinder).

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Thermal Treatment of Porcelain. (cont.)

on the optical indicator. The second method consists of grinding by layers one of the surfaces of the rectangular bar. By measuring the deformations produced in the process, it is possible to determine the value and sign of the residual internal stresses in the axial direction in bars cut from parts of large insulators. The internal stresses were tested under the following thermal treatment conditions (1100° to 800° temperature range): a) annealing - cooling rate, 5 to 15 degrees per hour; b) tempering-cooling rate, 450 degrees per hour; c) cooling at 25 degrees per hour (factory practice). The research carried out has established the following: 1. During annealing in the process of cooling, and also during annealing after repeated heating, the deformation of porcelain rings is measurable on the optical indicator. 2. When tempering the fired elements of 400 kv lead in covers, the compression stresses which develop in their surface layers attain 80 kg/cm^2. In the middle layers the stresses change into tensile stresses with a maximum of 40 kg/cm^2. 3. Under factory cooling conditions, with a cooling rate of 25 degrees per hour, tensile stresses develop in the rings as well as in the bars (in the surface layers), and, in the inner layers, residual compression stresses develop. 4. Residual internal stresses in porcelain increase with the thickness of the wall and the diameter of the insulator. This is observed during